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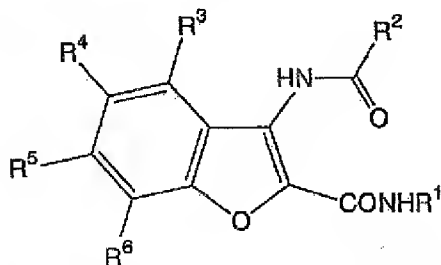
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各PCTガゼットの巻頭に掲載されている「コードと略語  
のガイダンスノート」を参照。(54) Title: NOVEL BENZOFURAN DERIVATIVE, MEDICINAL COMPOSITION CONTAINING THE SAME, AND USES OF  
THESE

(54) 発明の名称: 新規なベンゾフラン誘導体、それを含有する医薬組成物およびそれらの用途



(I)

(57) Abstract: A compound represented by  
the general formula (I) [wherein R<sup>1</sup> represents  
hydrogen or lower alkyl; R<sup>2</sup> represents lower alkyl,  
halo(lower alkyl), cycloalkyl, heterocycloalkyl,  
aryl, aralkyl, arylalkenyl, aryloxy(lower alkyl),  
heteroaryl, heteroaryl(lower alkyl), etc.; and  
R<sup>3</sup>, R<sup>4</sup>, R<sup>5</sup>, and R<sup>6</sup> each represents hydrogen,  
halogeno, cyano, lower alkyl, halo(lower alkyl),  
lower alkoxy, hydroxy, aryl, etc.; provided that at  
least one of R<sup>3</sup>, R<sup>4</sup>, R<sup>5</sup>, and R<sup>6</sup> is not hydrogen] or  
a prodrug or pharmacologically acceptable salt of  
the compound. The compound (I) has excellentantagonistic activity against an adenosine A<sub>2A</sub> receptor and is hence useful as a therapeutic or preventive agent for diseases related  
to an adenosine A<sub>2A</sub> receptor, especially motor dysfunctions, depression, anxiety disorders, cognition dysfunctions, cerebral  
ischemic disorders, restless legs syndromes, etc.

[続葉有]

WO 2005/073210 A1

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2005/001168

## A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl<sup>7</sup> C07D307/85, 307/86, 405/14, 413/14, 405/12, 409/12, 413/12, 491/113, A61K31/343, 31/5377, 31/496, 31/4025, 31/497, 31/41, 31/438, 31/357, 31/381, 31/422, 31/443, 31/35, 31/4525, 31/423, 31/4178, 31/5377,

According to International Patent Classification (IPC) or to both national classification and IPC.

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl<sup>7</sup> C07D307/85, 307/86, 405/14, 413/14, 405/12, 409/12, 413/12, 491/113, A61K31/343, 31/5377, 31/496, 31/4025, 31/497, 31/41, 31/438, 31/357, 31/381, 31/422, 31/443, 31/35, 31/4525, 31/423, 31/4178, 31/5377,

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
CAPLUS (STN), REGISTRY (STN)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	PADMASHALI, Basavaraj et al., Synthesis and pharmacological evaluation of some naphtho [2,1-b] furo [3,2-d] pyrimidines, Indian Journal of Heterocyclic Chemistry, 2002, 12 (2), 89-94	1-2, 4 3, 5-18
A	SCAMMELLS, Peter J. et al., XH-14 analogs as adenosine antagonists, Bioorganic & Medicinal Chemistry, 1998, 6 (9), 1517-1524	1-18
A	WO 03/045385 A1 (F. HOFFMANN-LA ROCHE AG.), 05 June, 2003 (05.06.03), & EP 1450796 A1 01 September, 2004 (01.09.04) & US 6596718 B 22 July, 2003 (22.07.03)	1-18

☒ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search  
21 February, 2005 (21.02.05)

Date of mailing of the international search report  
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Name and mailing address of the ISA/  
Japanese Patent Office

Authorized officer

Facsimile No.

Telephone No.

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2005/001168

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 02/074056 A2 (KING PHARMACEUTICALS RESEARCH AND DEVELOPMENT INC.), 26 September, 2002 (26.09.02), & US 2001-47008 A 29 November, 2001 (29.11.01) & JP 2004-536789 A 09 December, 2004 (09.12.04) & EP 1401441 A 31 March, 2004 (31.03.04)	1-18

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2005/001168

## Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 19  
because they relate to subject matter not required to be searched by this Authority, namely:  
The invention as set forth in claim 19 pertains to methods for treatment of the human body by therapy.
2. ☐ Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

C (続き) . 関連すると認められる文献		
引用文献の カテゴリー*	引用文献名 及び一部の箇所が関連するときは、その関連する箇所の表示	関連する 請求の範囲の番号
A	WO 03/045385 A1 (F. HOFFMANN-LA ROCHE AG) 2003.06.05, & EP 1450796 A1, 2004.09.01 & US 6596718 B, 2003.07.22	1-18
A	WO 02/074056 A2 (KING PHARMACEUTICALS RESEARCH AND DEVELOPMENT INC.) 2002.09.26, & US 2001-47008 A, 2001.11.29 & JP 2004-536789 A, 2004.12.09 & EP 1401441 A, 2004.03.31	1-18